## Index

Antenatal antecedents and the impact of obstetric care in the etiology of cerebral palsy, 775-776 impact of obstetric care, 783-785 infection and the inflammatory cytokine hypothesis, 778-780 multiple gestation, 780-782 pregnancy complications hemorrhage, 782-783 preeclampsia, 783 thrombophilias, 782 viral infections, 782

prematurity and low birth weight, 777-778 Causative factors in cerebral palsy (CP), 749-750 atypical intrauterine growth, 753-754 birth asphyxia, 751-753 causative factors not uniform in different CP subtypes and gestational ages, 751 causes recognition, 750-751 clues not pursued, 759 congenital anomalies, 757 genetics, 758 infection, inflammation, and maternal fever in labor, 754-755 multiple gestation, 757 multiple risk factors, 758 neonatal encephalopathy, 758-759 perinatal ischemic stroke, 755-757 placental pathology, 757-758 prematurity, 753 Cerebral palsy (CP), 742-743 classification, 746-747 criteria for diagnosis activity limitation, 745 age at assessment, 745-746 ataxia, 744 dyskinesia, 744 exclusion of other causes, 746 mixed forms, 744

key features of, 743-744 Diagnosis, treatment, and prevention of cerebral palsy, 816-817 antenatal approaches to prevention, 825-826 care of child with CP, 822-824

neurologic impairment, 744

international definition, 743

usefulness of brain imaging, 746

diagnosis, 817-821

spasticity, 744

tools, 746

neuroimaging classification, 821-822 postnatal approaches to prevention, 826-827 prognosis, 824-825

Errors and analysis of errors, 656-657 quality committee, 664-665 quality improvement tools, 659 failure mode effects analysis (FMEA), 662-663 human error investigation, 663-664 human factors, 659-662 root cause analysis, 662 quality indicators, 657-659 quality program, 657

Event reporting: the value of a nonpunitive approach, 647-649 application of information to the practice of

obstetrics, 654 barriers to reporting in healthcare, 649-650 current information systems are data rich and information poor, 651-652 federal response to nonpunitive reporting, 651 how reporting systems must change, 650

reporting systems look, 652-653 state efforts to advance safety, 650-651

Imaging for diagnosis and treatment of cerebral palsy, 787-788 current clinical applications cerebral dysgenesis, 796 conventional MRI, 794-795 diffusion imaging, 795-796 MRS, 796

term encephalopathy, 793-794 WMI/PVL/preterm birth, 792-793 imaging methods

computed tomography (CT), 788-789 cranial ultrasound (CUS), 788 MRI, 789

MRI techniques conventional anatomic imaging, 789-790 diffusion MRI, 790-791 fMRI, 791 MR spectroscopy, 791 volumetric MRI/surface-based analysis, 791-792 new techniques, 796-797

Managing a lawsuit anatomy of a lawsuit case resolution, 737-739 depositions, 734-735 expert testimony, 735-736

## Index

Antenatal antecedents and the impact of obstetric care in the etiology of cerebral palsy, 775-776 impact of obstetric care, 783-785 infection and the inflammatory cytokine hypothesis, 778-780 multiple gestation, 780-782 pregnancy complications hemorrhage, 782-783 preeclampsia, 783 thrombophilias, 782 viral infections, 782

prematurity and low birth weight, 777-778 Causative factors in cerebral palsy (CP), 749-750 atypical intrauterine growth, 753-754 birth asphyxia, 751-753 causative factors not uniform in different CP subtypes and gestational ages, 751 causes recognition, 750-751 clues not pursued, 759 congenital anomalies, 757 genetics, 758 infection, inflammation, and maternal fever in labor, 754-755 multiple gestation, 757 multiple risk factors, 758 neonatal encephalopathy, 758-759 perinatal ischemic stroke, 755-757 placental pathology, 757-758 prematurity, 753 Cerebral palsy (CP), 742-743 classification, 746-747 criteria for diagnosis activity limitation, 745 age at assessment, 745-746 ataxia, 744 dyskinesia, 744 exclusion of other causes, 746 mixed forms, 744

key features of, 743-744 Diagnosis, treatment, and prevention of cerebral palsy, 816-817 antenatal approaches to prevention, 825-826 care of child with CP, 822-824

neurologic impairment, 744

international definition, 743

usefulness of brain imaging, 746

diagnosis, 817-821

spasticity, 744

tools, 746

neuroimaging classification, 821-822 postnatal approaches to prevention, 826-827 prognosis, 824-825

Errors and analysis of errors, 656-657 quality committee, 664-665 quality improvement tools, 659 failure mode effects analysis (FMEA), 662-663 human error investigation, 663-664 human factors, 659-662 root cause analysis, 662 quality indicators, 657-659 quality program, 657

Event reporting: the value of a nonpunitive approach, 647-649 application of information to the practice of

obstetrics, 654 barriers to reporting in healthcare, 649-650 current information systems are data rich and information poor, 651-652 federal response to nonpunitive reporting, 651 how reporting systems must change, 650

reporting systems look, 652-653 state efforts to advance safety, 650-651

Imaging for diagnosis and treatment of cerebral palsy, 787-788 current clinical applications cerebral dysgenesis, 796 conventional MRI, 794-795 diffusion imaging, 795-796 MRS, 796

term encephalopathy, 793-794 WMI/PVL/preterm birth, 792-793 imaging methods

computed tomography (CT), 788-789 cranial ultrasound (CUS), 788 MRI, 789

MRI techniques conventional anatomic imaging, 789-790 diffusion MRI, 790-791 fMRI, 791 MR spectroscopy, 791 volumetric MRI/surface-based analysis, 791-792 new techniques, 796-797

Managing a lawsuit anatomy of a lawsuit case resolution, 737-739 depositions, 734-735 expert testimony, 735-736

- initiation of a claim. 733-734 written discovery, 734 first and immediate contact, 731-733
- Negotiating, mediating, and arbitrating physician-patient conflicts arbitrating physician-patient conflicts, 728-729 mediating physician-patient conflicts, 726-728 negotiating physician-patient conflicts, 722–726 patient's story, 719–722
- Neurodevelopmental management strategies for children with cerebral palsy, 800-801 available treatments and care coordination.
  - 811-813 child and family stressors of CP, 806-807 adolescent and adult outcomes, 807-808
  - developmental, behavioral, and functional status and support status assessments
    - Assessment of Life Habits (LIFE-H), 808-809
    - Family Support Scale (FSS), 810 Health Utilities Index (HUI3), 810-811 Pediatric Evaluation of Disability Inventory
    - (PEDI), 808 Pediatric Quality of Life Inventory (PedsQL), 810
    - SDO, 809-810
  - Support Functions Scale (SFS), 810
  - neurodevelopmental framework on disability in functioning for children with CP. 801-803
    - epidemiology of CP, 805-806 types of CP, 803-805
- Physician error and disclosure, 700-701
  - approaches to physician error and disclosure Institute of Medicine's (IOM) 1999 study, 702
    - Joint Commission, 702 Patient Safety and Quality Improvement Act of 2005, 703
  - best disclosure, 706-707
  - disclosure legislation, 703-705
  - disclosures and accompanying apologies, 703
  - do the apology/disclosure policies work? Harvard hospital's policy, 706
    - Lexington VA study, 705
  - University of Michigan study, 705-706 how to disclose, 707
- mismatch of attitudes, 701-702
- Physician practice behavior and litigation risk: evidence and opportunity, 688-689
  - avoiding courtroom, 694-697 can physicians really change behavior?, 697–698
  - distribution of malpractice claims among obstetricians, 692-694
  - failure of communication, 689-690 filing malpractice suits, 690-692 occurance of errors, 689

- Practice patterns to decrease the risk of a malpractice suit, 680-681
  - patterns to decrease legal risk
    - charting, 685
    - comments to patients about care by other physicians, 686
    - informing, educating, and involving patients, 683-684
    - obtaining consult and making referrals, 684-685
    - teamwork, 685-686
  - patterns to decrease medical risk
    - design and implement safe systems, 681-682
  - evidence-based medicine, 681 listening to patients, 683
  - listen to patients, 683
  - supervision, 682-683
- Prevention, diagnosis, and treatment of cerebral palsy in near-term and term infants
  - cerebral function monitoring in the neonatal period, 831
  - correlation of MRI patterns of injury and prenatal and perinatal factors, 833
  - diagnosis of CP in term and near-term infants, 831-832
  - diagnosis of encephalopathy in term and near-term infants, 830-831
  - hypothermia trials, 835
  - incidence and risk factors, 829-830
  - longer follow-up of infants receiving hypothermia, 836-837
  - meta-analyses of trials, 835-836
  - neonatal encephalopathy, 830
  - neuroimaging, 832-833
  - other treatments, 837
  - perinatal arterial stroke, 830
  - prevention of CP in term and near-term infants, 833-835
  - relationship of the type of CP to etiology in term and near-term infants, 832
  - treatment of neurologic sequelae, 837-838 treatment of oromotor sequelae, 838
- 3Rs program: the Colorado experience
  - case examples
  - general surgery, 715 IM-gastroenterology, 715-716
  - OB/GYN, 715
  - orthopedic surgery, 715
  - COPIC, history of, 709-710
  - hard data, 714-715
  - impact, 717
  - a patient study, 717 program management

  - role of administrator, 711-713
  - role of medical director, 711
  - role of physician participant, 713-714
  - soft data
    - patient's comments, 716 physician comments, 716

- Team approach to care in labor and delivery, 666-667 classroom course, 670, 671-673
  - coaching and sustaining new behaviors, 674
  - crew resource management (CRM)
    - introduction of, 667 principles, 668-669
    - translation into medicine, 667-668
  - how team training can decrease malpractice risk, 674-677
  - team attributes, 669
  - teamwork curriculum, 669-670
    - overview of, 671
- Trends in the rates of cerebral palsy associated with neonatal intensive care of preterm children
  - birth data birth weight and gestational age, 771
    - intrauterine growth failure, 772
  - male sex, 772 multiple births, 772
  - considerations in using CP as a marker of perinatal brain injury in preterm infants
    - age of child at definitive diagnosis of CP, 767-768 birth weight vs. gestational age-specific rates of CP, 768
    - definition of CP, 766-767

- population type, 766
- singleton vs. multiple births, 768
- maternal obstetric and perinatal causes of CP
- antenatal steroid, 771
  - cesarean section, 771
  - fetomaternal infections, 771 intrapartum hypoxia, 771
  - magnesium sulfate, 771
  - placental hemorrhage, 771
- social class, 771 neonatal intensive care of preterm infants,
- 764-766 neonatal risk factors
- chronic lung disease, 773

  - hypothyroxinemia, 772-773
  - neonatal infections/septicemia, 772
  - periventricular hemorrhage, 772 periventricular leukomalacia (PVL), 772
- neonatal therapies
  - indomethacin, 773
- postnatal steroid use, 773 perinatal and neonatal correlates and causes of
- CP, 769-770
- trends of CP among preterm children, 768-769

